

## CLAIMS.

We claim:

1. A method of object recognition on a bit-mapped image,  
comprising
  - 5 parsing the image into regions,  
identifying text and non-text regions,  
recognition of objects,  
preliminarily assigning at least one graphical structure  
comprising more than one primary graphical unit to be used as a  
10 standard element that may compose as a part at least one  
recognized object,  
preliminarily describing at least one recognized object as a  
set of said standard elements of at least one type along with  
spatially parametrical correlations thereof,  
15 performing the following steps
    - search and identification of at least one standard element  
on the said bit-mapped image,
    - selection of at least one standard element image for testing  
on belonging to the recognized object,
    - 20 setting up and testing a hypothesis about the recognized  
object on the basis of the image formed by all aggregate of  
said selected standard element images as a whole taking into  
account spatially parametrical correlations thereof.
2. A method of character recognition on a bit mapped image,  
25 comprising
  - parsing the image into regions,  
identifying text and non-text regions,  
identifying regions containing characters,  
recognition of characters,  
30 preliminarily assigning at least one type of graphical  
structure comprising more than one primary graphical unit to be

used as a standard element that may compose as a part at least one recognized character,  
preliminarily describing at least one recognized character as a set of said standard elements of at least one type along with  
5 spatially parametrical correlations thereof,  
performing the following steps

search and identification of at least one standard element on the said bit-mapped image,

10 selection of all standard elements in the region presumably containing image of character for testing on belonging to a recognized character,

setting up and testing a hypothesis about the recognized character using the image formed by all aggregate of said selected standard elements as a whole taking into account  
15 spatially parametrical correlations thereof.

3. The method as recited in claims 1 or 2, wherein at least one standard element composing the recognized object is described as an alternative.

4. The method as recited in claims 1 or 2, wherein the set of  
20 standard elements composing the recognized object is described as an alternative.

5. The method as recited in claims 1 or 2, wherein at least one standard element composing the recognized object is described as an interval.

25 6. The method as recited in claims 1 or 2, wherein the image at least partly contain standard elements connected by relations of mathematical logic.

7. The method as recited in claims 1 or 2, wherein the step of recognized image identification as a standard elements aggregate  
30 additionally comprise

- analysis of elements connected by relation of "AND" type,
- analysis of elements connected by relation of "OR" type,
- analysis of elements connected by relation of "NOT" type.

8. The method as recited in claims 1 or 2, wherein said  
5 standard elements correlations in the recognized object are expressed in the form of more than single-level structure.

9. The method as recited in claims 1 or 2, wherein said standard elements at least partly contain portions of white color.

10 10. The method as recited in claims 1 or 2, wherein said standard elements at least partly contain transparent portions.

11. The method as recited in claims 1 or 2, wherein in the case of ambiguous result of hypotheses setting up and testing a supplementary information is used.

15 12. The method as recited in claims 1 or 2, wherein in the case of ambiguous result of hypotheses setting up and testing supplementary recognition methods are used.

13. The method as recited in claims 1 or 2, wherein the said standard element is composed of more prime standard elements of  
20 at least one type.

14. The method as recited in claims 1 or 2, wherein the description of a recognized object as a set of standard elements and spatially parametrical correlation thereof is placed into the special means for storage and search.